



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,213	03/01/2004	Alastair M. Reed	P0943	3946
23735	7590	03/14/2007	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			PERUNGAVOOR, SATHYANARAYA V	
		ART UNIT	PAPER NUMBER	
		2624		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/14/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/791,213	REED, ALASTAIR M.
	Examiner Sath V. Perungavoor	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date \_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_.

## DETAILED ACTION

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

[1] Claims 1-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,700,995. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the instant application.

For example, the patent anticipates claim 1 of the instant application as follows:

A method of digital watermarking an image comprising [col. 6, ll. 46-47]: adjusting the image in accordance with values in a first representation associated with a printing process [col. 6, ll. 49-50]; determining values to convey a digital watermark in the adjusted image [col. 6, ll. 51-52]; adjusting the values in accordance with a second representation associated with the printing process [col. 6, ll. 53-54]; and combining

the adjusted change values and the image to produce a digital watermarked image  
[col. 6, ll. 55-56].

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[2] Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Daly-819<sup>i</sup> which incorporates by reference Daly-483<sup>ii</sup>.

Regarding claim 1, Daly-819 meets the claim limitations, as follows:

A method of digital watermarking an image [fig. 6] comprising: adjusting the image (i.e. 12-second image) in accordance with values in a first representation (i.e. 36-CSF) associated with a printing process [fig. 6; col. 3, ll. 45-48; col. 4, ll. 31-40: Note that here the phrase “associated with a printing process” is vague and does not specify how it is associated with the printing process.]; determining values (i.e. values below the visual threshold) to convey a digital watermark (i.e. 10-hidden image) in the adjusted image (i.e. 36-CSF) [fig. 6; col. 3, ll. 25-31; col. 4, ll. 59-67]; adjusting the values (i.e. values below the visual threshold) in accordance with a second representation associated (i.e. 46-CSF<sup>-1</sup>) with the printing process [fig. 6; col. 5, ll. 1-5; col. 3, ll. 45-48: Note that here the phrase “associated with a printing process” is vague and does not specify how it is associated with the printing process.]; and

combining (i.e. 18) the adjusted change values (i.e. 46-CSF<sup>-1</sup>) and the image to produce a digital watermarked image (i.e. 20-combined image) [fig. 6; col. 5, ll. 5-15].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[3] Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly-819 which incorporates by reference Daly-483 in view of Lawler<sup>iii</sup>.

Regarding claim 2, Daly-819 discloses the claim limitations as set forth in claim 1.

Daly-819 does not explicitly disclose the following claim limitations:

The method of claim 1, wherein the first representation comprises a forward dot gain curve.

However, in the same field of endeavor Lawler discloses the deficient claim limitations, as follows:

A first representation comprising a forward dot gain curve [fig. 6].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Daly-819 with Lawler to apply a forward dot gain curve to the image, the motivation being to develop quality images by accounting for dot gain effects [page 2, col. 2, para. 4; page 4, col. 1, para. 4].

Regarding claim 3, Lawler meets the claim limitations, as follows:

The method of claim 2, wherein the second representation comprises a backward dot gain curve [fig. 7].

Regarding claim 4, Lawler meets the claim limitations, as follows:

The method of claim 3 wherein the backward dot gain curve comprises an inverse of the forward dot gain curve [fig. 7].

Regarding claim 5, Daly-819 discloses the claim limitations as follows:

The method of claim 1 wherein the printing process comprises a printing device [col. 3, ll. 45-48].

Daly-819 does not explicitly disclose the following claim limitations (emphasis added):

The method of claim 1 wherein the printing process comprises an offset printing press.

However, in the same field of endeavor Lawler discloses the deficient claim limitations, as follows:

A printing process comprising an offset printing press [page 1, col. 2, para. 1].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Daly-819 with Lawler and print images with an offset printing press, the motivation being offset printing press is well-known to be suitable for high volume printing, such as magazines.

Regarding claims 8-13 all claimed limitations are set forth and rejected as per discussion for claims 4 and 5.

[4] Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly-819 which incorporates by reference Daly-483 in view of Cass<sup>w</sup>

Regarding claims 6 and 7, Daly-819 meets the claim limitation as set forth in claim 1.

Daly-819 does not explicitly disclose the following claim limitations:

The method of claim 1 wherein the image is watermarked using a scale to black technique.

The method of claim 1 wherein the image is watermarked using a scale to white technique.

However, in the same field of endeavor Cass discloses the deficient claim limitations, as follows:

A method of modifying an image using a scale to black or white technique [col. 5, ll. 14-25; *It acknowledged that “scale to black” or “scale to white” techniques have special meaning in the specification. However, the scope of these techniques is unclear, i.e. what steps from the specification should be imported into the claims.*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Daly-819 with Cass to watermark using scale to black/white techniques, the motivation being minimize human viewer response and maximize scanner response to color changes [col. 5, ll. 20-25].

### ***Contact Information***

[5] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

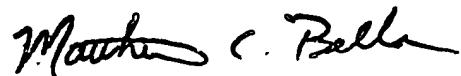
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Matthew C. Bella whose telephone number is (571) 272-7778, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

---

Dated: March 8, 2007

Matthew C. Bella  
Sath V. Perungavoor  
Telephone: (571) 272-7455



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

---

<sup>i</sup> US 5,905,819

<sup>ii</sup> US 5,394,483

<sup>iii</sup> Know thy enemy: understanding dot gain and its effects

<sup>iv</sup> US 6,023,525